

ABSTRACT OF THE DISCLOSURE

A passive sensing system for determining a physical position of a mechanical device includes an encoding system configured to convert a position signal representative of the physical position of the mechanical device into an encoded signal in a binary format. The sensing system also comprises a plurality of secondary optical paths coupled to a primary optical path positioned between a light source and the encoding system. The encoded signal comprises a plurality of pulses of light each sequentially delayed by the secondary optical paths. A system for determining a physical position of a flight control surface of an aircraft is also disclosed. A method for determining a physical position of a flight control surface of an aircraft is also disclosed. A passive sensing system for determining a physical position of a flight control surface of an aircraft is also disclosed.